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MOUNDS IN NORTHERN HONDURAS

BY

THOMAS GANN

EXTRACT FROM THE NINETEENTH ANNUAL REPORT OF THE
BUREAU OF AMERICAN ETHNOLOGY

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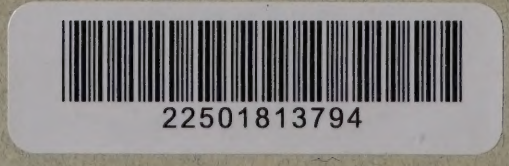

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MOUNDS IN NORTHERN HONDURAS

By Thomas Gann

INTRODUCTION

Such parts of British Honduras as have thus far been explored have proved extraordinarily rich in archeologic material of interest; but, unfortunately, owing to the impenetrable character of the bush, by far the greater part of the colony remains unexplored.

One remarkable fact in connection with the distribution of mounds, or cerros, throughout the colony is that wherever they exist good maize-producing land is certain to be found, consequently the present Indians, taking advantage of their forefathers' experience in removing their villages (which, owing to the rapid exhaustion of the soil, they are compelled to do at frequent intervals), invariably make their clearings in the vicinity of these groups of mounds, confidently anticipating a good crop of maize.

Near the village of Corozal, in the northern district of the colony, a clearing of about 500 acres was made some years ago, which was subsequently planted with sugar cane, and is now known as the estate of Santa Rita. When the clearing was first made between forty and fifty mounds were discovered, and it was found that the majority of these were built to a great extent of large blocks of limestone, many of which were squared, as if they had previously formed part of a building. As stone is scarce in the vicinity a number of the mounds were completely destroyed in order to obtain the stone for erecting houses and water tanks. Of the pottery and other remains which must have been brought to light during the demolition of these mounds there is unfortunately no record, and the probability is that they were thrown away as useless.

DISTRIBUTION OF THE MOUNDS

The site chosen by the builders of these mounds for their residence is one of the most favorable for many miles around, being on an extensive plateau 50 to 100 feet above the sea level, about one mile inland, and separated from the sea by a belt of swampy, malarial land, which must have formed a strong natural protection against enemies

from seaward, the main, if not the only, direction from which they might be expected. The soil upon the plateau is remarkably productive. The only apparent drawback to the location is that the nearest fresh-water supply, namely, Rio Nuevo, is at a distance of several miles; but, as will be shown, this defect was remedied by the construction of underground reservoirs.

When the work of excavation among these mounds was first begun,

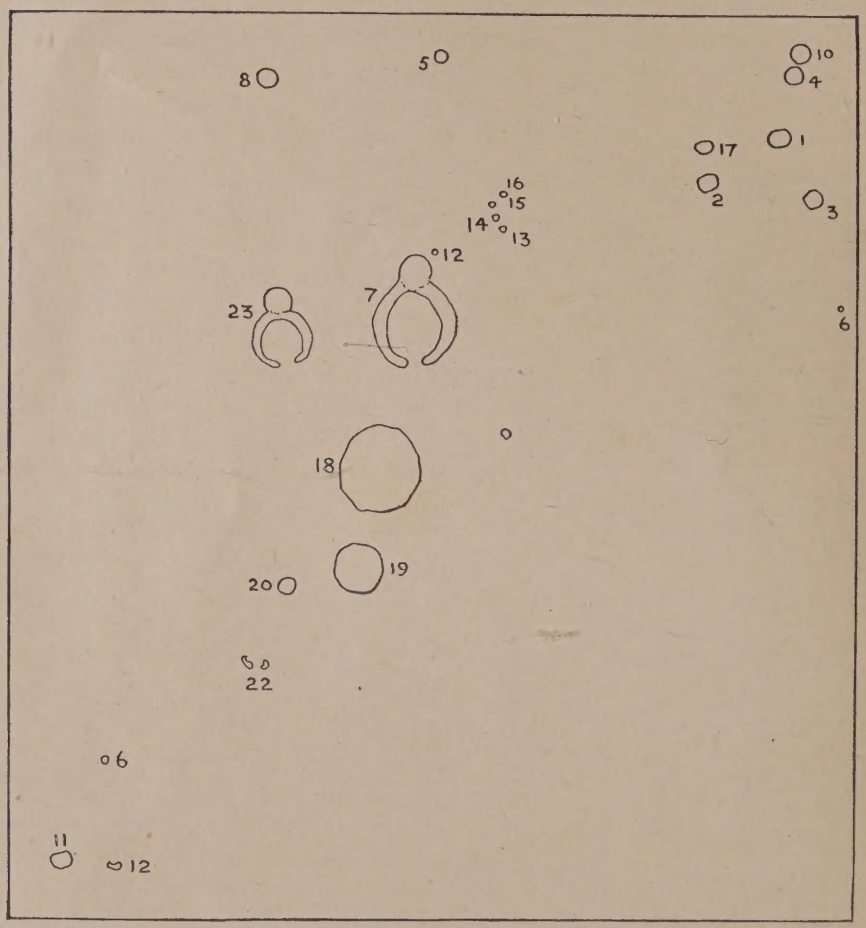

FIG. 4—Plan of mounds at Santa Rita.

in 1896, thirty-two of the original number were intact. Of these, sixteen have, up to the present time, been thoroughly explored, and it is the object of the present paper to give some account of their construction and contents.

For descriptive purposes the explored mounds may be divided into three classes, as follow:

1. Mounds constructed over buildings.
2. Mounds containing, superficially, two broken pottery images, and

more deeply, or on the ground level, painted pottery animals either within or immediately adjacent to a pottery urn.

3. Mounds which constitute the solitary representatives of a class, and those of unknown or doubtful use.

CHARACTERISTICS OF MOUND 1

The most important of the mounds erected over buildings (class 1) was without doubt that marked 1 on the accompanying plan (figure 4), as the walls of this building were covered externally with painted stucco, which, notwithstanding the dampness of the climate, was found to be in an excellent state of preservation. This mound was situated near the edge of the plateau, at a distance of 580 yards from the large central mound (7). Before excavations were commenced the mound was found to be 290 feet in circumference, 80 feet in length, 66 feet in breadth, and 14 feet in height. A tradition existed among some of the older employees on the estate of Santa Rita that when the brush was first cleared from this mound there stood on its summit a wall 4 or 5 feet high and several yards long, which had been pulled down in order to obtain the squared stone of which it was built. No trace of this wall was seen when the outside of the mound was examined, but by digging into it, toward its east end, a wall was discovered at a depth of a few inches, which, on being cleared, was found to be a little over 4 feet long. At a height of 4 feet 10 inches above the ground-level a triangular stone cornice projected, and below this the wall was entirely covered with painted stucco, the device on which will be described later. Above the cornice the wall was composed of roughly squared stones, and varied from 2 to 3 feet in height. It rested on a floor of smooth, hard, yellowish cement, which was continuous with the painted stucco. Its south end was broken down, and its north end joined the north wall of the building covered by the mound.

Unfortunately, when this wall was discovered there was no tracing paper to be had in the district, and I had to copy the design painted on the stucco with a very imperfect improvised substitute. After I had traced the outline of about half the mural painting, some mischievous Indians came in the night and removed the whole of the stucco. This is especially to be regretted, as toward the broken end of the wall a number of hieroglyphics were massed together, reaching from the cornice to the floor, which were entirely lost.

The north wall of the building was the only one entirely unbroken throughout its extent below the cornice. It measured 35 feet 8 inches in length and its center was pierced by a doorway 3 feet in width. The upper part of the mural decoration on this wall was in a remarkably good state of preservation, but, owing probably to dampness,

nearly the whole of the lower part had become effaced. Fortunately, on that part of the wall adjacent to the doorway the painting was perfect from cornice to floor. This wall, like the others, rested on a layer of hard cement continuous with the stucco which covered it.

Of the west wall, which was the last to be exposed, 9 feet remained standing. It was the best-preserved wall in the whole building, the entire mural painting, from cornice to floor, being almost perfect.

Of the south wall of the building not one stone remained upon another; but as the mound was built mainly of squared stones, and as there were many such in the line of this wall still retaining pieces of painted stucco, it seems probable that this wall was decorated similarly to the others.

The triangular stone cornice extended along all the walls at a uniform height of 4 feet 10 inches from the ground; its upper surface was oblique, its lower surface horizontal; and it projected 3½ inches from the wall. The layer of hard cement on which the building rested could be traced outward from its walls a distance of 4 or 5 feet, where it ended in a jagged edge. Its superficial layer was light yellow in color, and so hard that it was difficult to make any impression on it with a machete; the deeper layers, however, were much softer. This cement layer was placed about 2 feet above the ground level.

The interior of the building was without cornice, and was completely covered with plain, unpainted stucco. The floor was on a level with the ground outside the walls, and was of the same hard cement which covered it.

The plain stucco covering the interior of the building was in very close contact with the wall, from which it could not be removed, except in small pieces. The painted stucco on the outside, on the other hand, was separated from a subjacent layer of similar material by a very thin layer of dark, friable clay, rendering it easy to remove large pieces of the stucco without much damage to the painting. The second layer of stucco also bore traces of painted figures, but they were so indistinct that even if the superficial layer had all been carefully removed, it would have been impossible to copy them. Beneath the second layer there existed a third layer, which also bore faint traces of having originally been covered with colored devices.

The greater part of the walls above the cornice had been broken down, but in places they rose to a height of 5 feet. The mortar used in constructing the building was soft and friable, and contained large lumps of limestone. The walls were throughout uniformly 14 inches thick.

During the excavation of this mound a large number of potsherds were found; some of them roughly made, others nicely decorated with geometric devices in red, black, and yellow; a few were glazed. Two stone spearheads were also found—one, triangular in shape and 4½ inches in length, was made of yellow flint; the other, of leaf shape, 3

inches in length, was chipped from translucent, grayish flint; the points of both had been broken.

The greatest possible care had evidently been taken by the builders of this mound to preserve, both from weather and from accident, that portion of the painted stucco which remained intact. This was more especially apparent in the north and west walls, where the method adopted was as follows: Built up from the cement floor, parallel with the walls and at a distance of 1 to 2 inches from them, was a wall consisting of rough blocks of limestone, reaching nearly as high as the cornice; extending outward and downward from the latter, a layer of cement 7 to 8 inches thick met this wall and continued for several feet toward the circumference of the mound. By this ingenious arrangement all the rain which drained along the wall was, on reaching the upper surface of the cornice, directed outward along the roof-like layer of cement, so that it could not reach the painted stucco, which was also protected from the surrounding damp earth by the rough wall built up parallel with it, but not touching it. The only injury, in fact, which the wall suffered was from the roots of plants which had penetrated the cement layer and fixed themselves to the stucco. In removing some of these it was almost impossible not to injure the painting.

PAINTING ON THE WALLS WITHIN MOUND 1

Of the painting on the east wall (figure 5), unfortunately, only a rude outline of the least interesting and important part has been preserved. The table of hieroglyphics, which should have occupied the whole of the left of the picture, as has been before explained, has been irredeemably lost. Next to these, and occupying the central part of the picture, were depicted two human beings who, from their attitudes, evidently were represented as engaged in combat. One of the figures is gone, only a part of his weapon being visible. The outline of the other is shown at *b* in the figure. In the original each of these warriors stood with the body thrust forward, the right foot advanced, and the right hand, in which was held a cruciform weapon, uplifted. The warrior on the left was apparently warding off a blow with the handle of his battle-ax. There can be little doubt that these weapons were the ordinary stone ax-heads—numbers of which are found in the vicinity—hafted in a wooden handle and held in place by a thong of leather or henequen fiber. This is well shown in the original, but in the rough outline given in figure 5 it is not by any means so apparent. On the extreme right of the picture is the upper part of the figure of an old man, seemingly watching the combat. This is probably meant to represent the god Quetzalcoatl, or Cuculcan of the Maya, as in headdress and profile he bears a marked

PAINTED STUCCO ON EAST HALF OF N

TH WALL, MOUND 1, SANTA RITA ⅛

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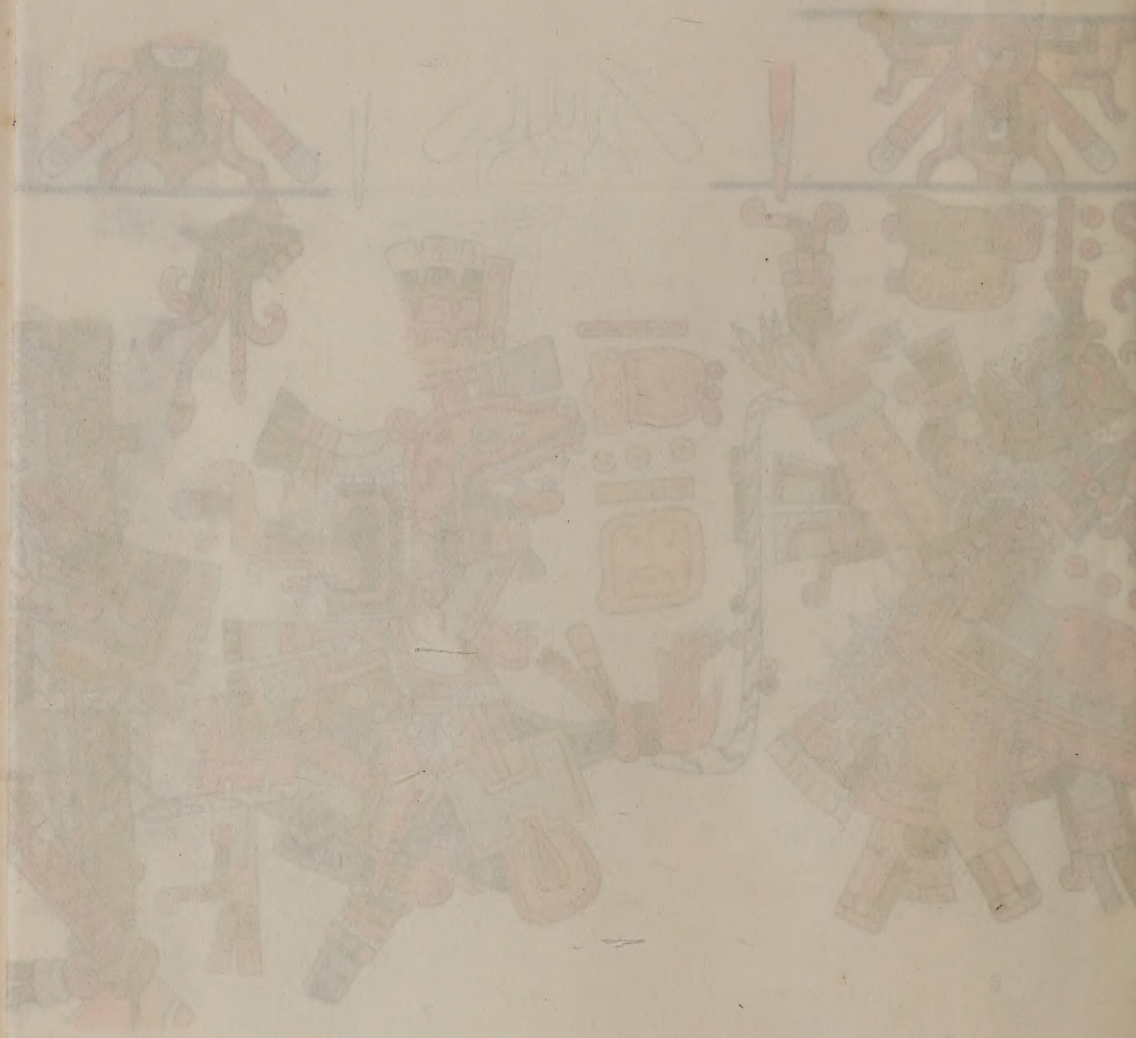


lower blue, not unlike various colored ornaments made by the modern Maya from henequen fiber. The front of the headdress of figure 1 is ornamented with the head and outstretched wings of an eagle; that of figure 2 with the head of a dragon, in which the lower jaw appears to be wanting; that of figure 3 also with the head of a dragon. Figure 4 has a square human face placed well above and in the front of the headdress. Figure 5 has a dragon's head in front, immediately above the face. Figure 6 has a small dragon's head in front of the headdress and a large one behind it. Figure 7 has in front, immediately above the face, a tiger's head, and at the back a dragon's head. In figure 8, owing to the obliteration of the stucco, the upper part of the headdress is wanting. The headdress of figure 9 has in its front the head of an animal resembling a raccoon. The individual himself is standing upon an animal (probably a pepisquinte) at full gallop. His left foot rests on the animal's head, his right foot on its rump.

Each figure is ornamented with large earrings, whose prevailing shape is oval or circular, and which have pendants hanging from their centers. Figure 1 has projecting from the right ala of the nose an ornament somewhat resembling in shape a right-angle triangle, the side opposite the right angle being divided into three steps. In figure 2 the nose ornament consists of two nearly circular objects attached to the tip of the nose, one in front of the other. Figure 4 is similarly decorated. Figure 5 has projecting from each ala of the nose ornaments similar to that in the right ala of the nose of figure 1. Figure 6 is decorated with a J-shape lip ornament. Attached to the right ala of the nose of figure 9 is a small object which resembles half a bow. Of figure 10 only the outline has been preserved; it is, therefore, impossible even to conjecture what it was intended to represent.

Immediately beneath figure 9 is a serpent's head, decorated with an elaborately ornamented circular collar; the body is broken off short, and the small portion remaining has numerous curved spines on its dorsal surface.

Immediately beneath figure 10 is depicted a highly conventional representation of a fish with a plume projecting from its mouth.

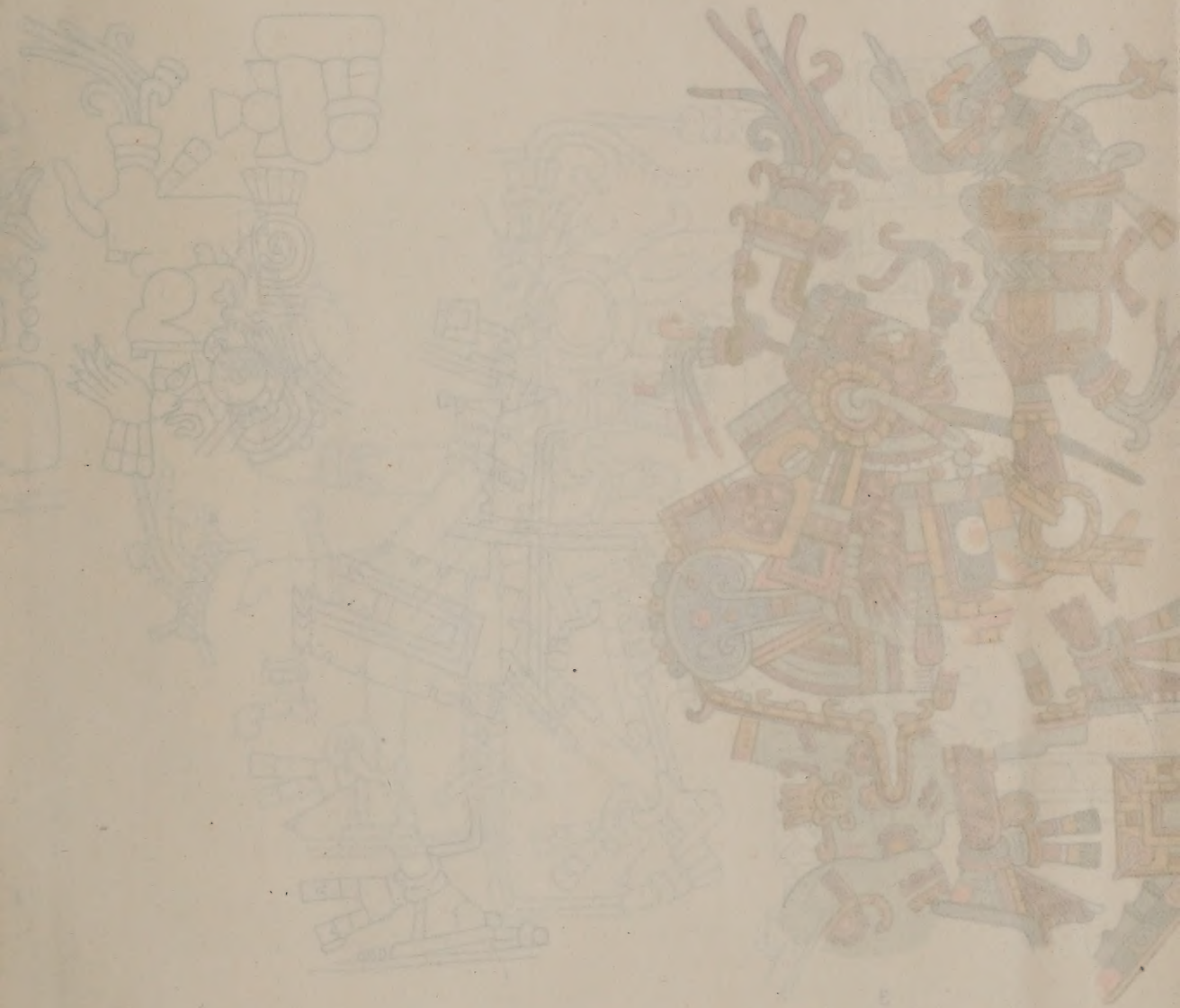
The second half of the north wall, extending from the doorway to the west wall, was decorated with nine figures (plate XXX). Unfortunately the whole of the lower portion of this part of the wall had been destroyed by dampness, and a great part of three of the figures had also been obliterated. The first figure on this part of the wall has not been copied, as it was precisely similar in design to the corresponding figure on the opposite side of the door (shown in plate XXIX, figure 10). Figure 1 appears to be holding in each extended hand a conical object as a gift or offering. In excavating a mound some eight miles from Santa Rita a number of broken clay figures were discovered,

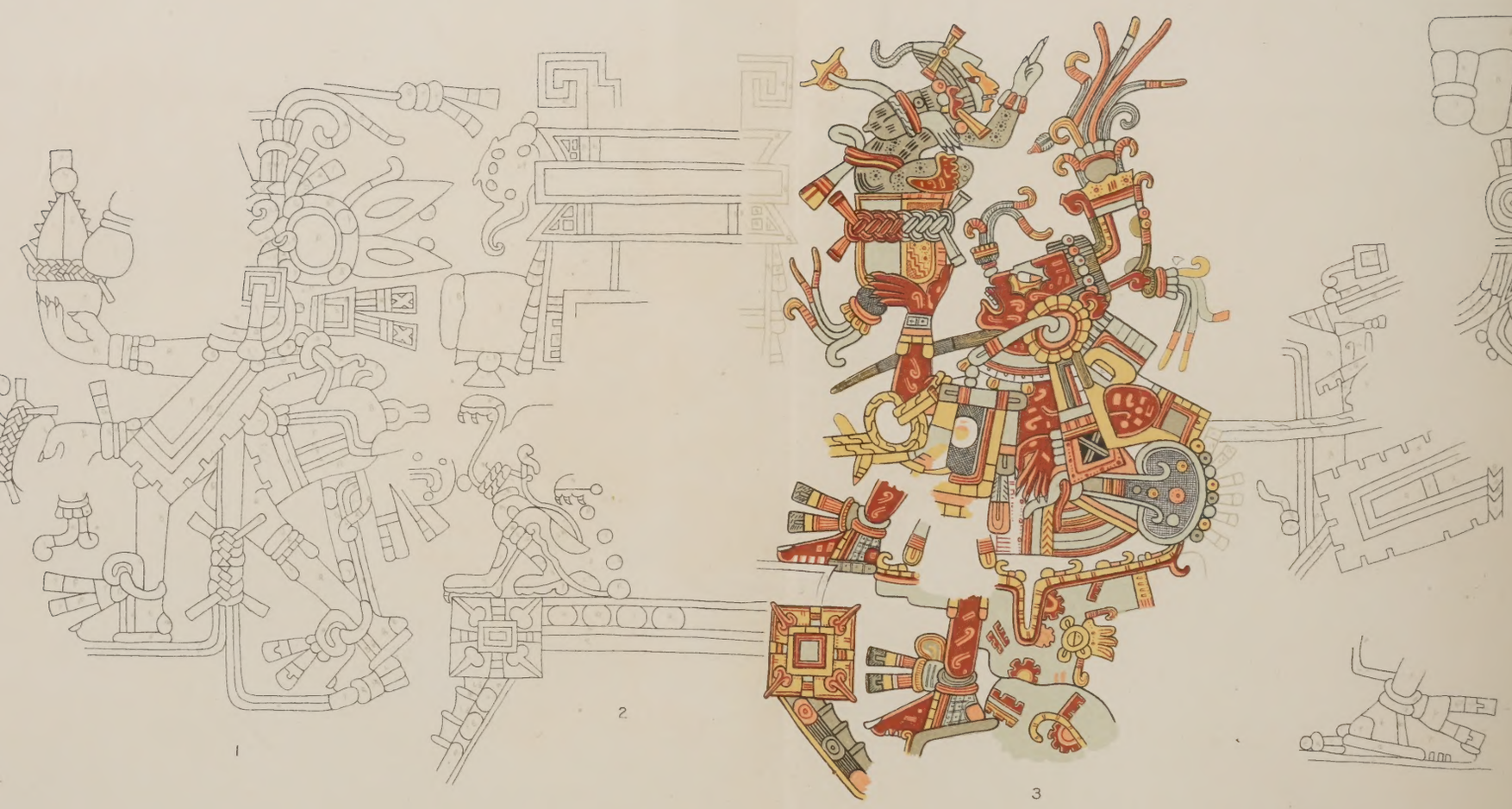
one of them holding in its hand an object almost exactly similar to that held in the right hand of this figure, and in unearthing the idol shown in plate XXXII, figure 2, a similar object was found. Figure 2 was so indistinct that it was impossible to trace it properly. The original was evidently meant to represent a highly ornate structure, the upper part of which is shown in the figure to be supported on each side by two monsters, a part of one of which is seen in the lower left-hand corner of the figure. Figure 3 is holding in the left hand, apparently as an offering, a dwarf or a baby.

On comparing this figure with that sculptured on the left slab of the Temple of the Cross at Palenque[1] it will be seen that a remarkable resemblance exists between them. The facial profiles are almost identical, the headdresses are very similar (except that in the Palenque figure the plumes of feathers are absent), and there is strong similarity in each case between the gift or offering and the mode of presenting it. The Palenque figure appears to be standing upon the head of some monstrous animal, whereas figure 3 is sitting within the widely open jaws of an animal, which, for want of a better term, has hitherto been called a dragon, whose jaws, curved teeth, and eye, with its conventional eye ornament, are clearly shown.

Figures 4 and 5 were much injured by dampness. They will be referred to in dealing with the wall as a whole. The profile of figure 6 differs somewhat from that of all the others. The nose is small, straight, and less Semitic in character, while the forehead is more nearly upright. Figure 7 is apparently undergoing some sort of torture or punishment, as he is trussed up in a very constrained position on a low platform. His right elbow appears to have been either broken or dislocated. Figure 8 probably represents Quetzalcoatl, or Cuculcan of the Maya, the god of the air, whose name in both languages signifies "feathered serpent," as he holds in his right hand a serpent with a plume on its head; moreover, two serpents with feather markings are coiled around his body, and the profile is that which is usually ascribed to this god. The elaborately ornamented feather-work headdresses are prominent in all the figures, as are also the large earrings with long pendants hanging from their centers. The earrings of figures 1, 6, and 8 differ from the others in being square instead of round. In figures 6, 7, and 8 the heads of animals are to be seen in the headdresses, immediately above the faces. It is difficult to say to what animal the head in front of the headdress of figure 6 belongs. That at the back of the headdress is similar to those already described as dragons' heads. A large eagle head is placed in front of the Maxtli of figure 6. The head in front of the headdress of figure 7, the lower jaw of which is lacking, is probably that of a peccary.

[1] Charnay, Ancient Cities of the New World, p. 254.





1 2 3 4

PAINTED STUCCO ON WEST HALF OF NO[illegible] MOUND

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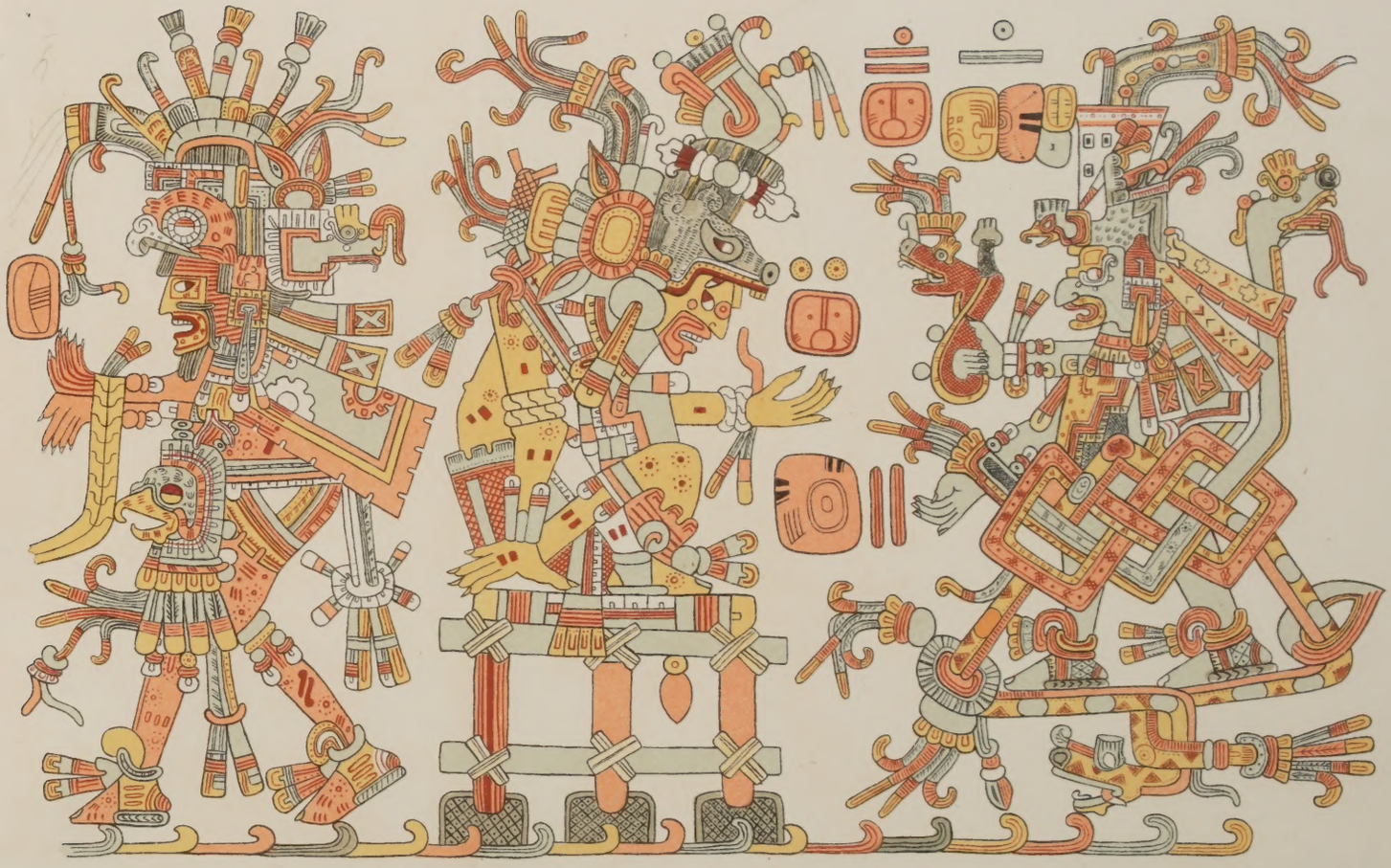

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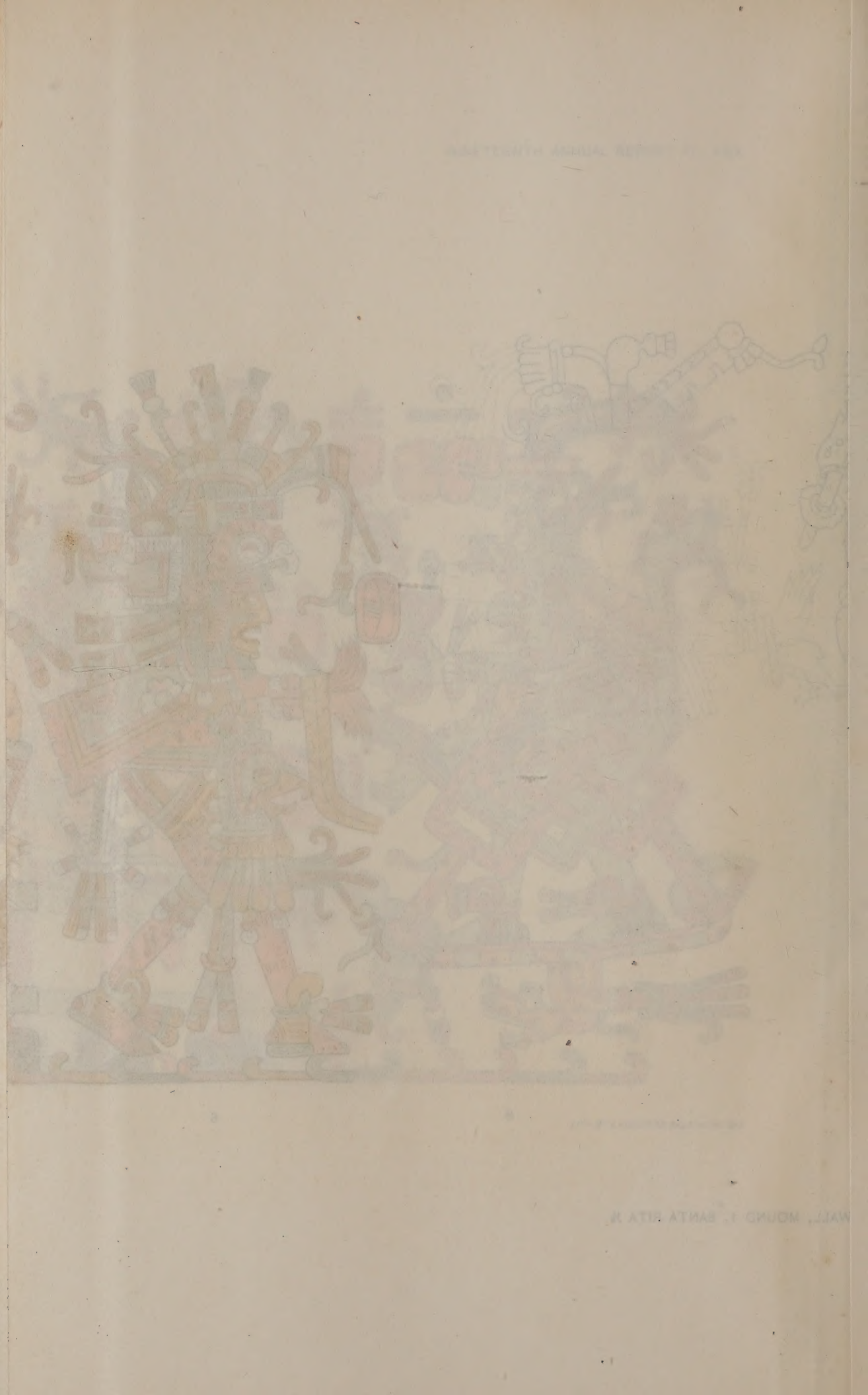
H WALL, MOUND 1, SANTA RITA ⅙



The 9-foot section of the west wall which was left standing presents for examination three figures (plate XXXI). The painting, unlike that on all the other walls, was almost intact from the cornice to the floor, and conveys some idea of what the lower part of the design on the other walls was probably like. The figures on the right and left in the illustration are human, and they appear to be in the act of making offerings to the central figure. The figure on the left is presenting in his left hand an object very similar to that held in the hand of figure 1 of plate XXX. The figure on the right is presenting two severed human heads, one held in each hand, which he is grasping by their long, flowing hair. The upper head still retains its earrings and part of its headdress, consisting of two snakes' heads; also a gorget of beads and pendants. The lower face possesses a mustache and a beard, and is ornamented with earrings, headdress, and a gorget. It is noticeable that the left-hand figure in this plate, seen in profile, is entirely different from any of the other figures on the wall. The nose is long and club shaped, the forehead is prominent, and the face is covered with a beard and mustache. It is probable either that this is meant as a caricature, or that the individual is wearing a mask. The contour of the face held in the right hand of figure 3 is somewhat similar, but in this case the beard and mustache are absent. The same curious triangular nose ornaments are seen projecting from each ala of the nose of figure 3 as are worn by figures 1 and 5, in plate XXIX. The upper part of the headdress is formed by an animal somewhat resembling a monkey in a crouching position. The central figure represents a death's-head within a sort of altar. Speech signs are proceeding from its mouth and from the top of the altar. This is probably meant for Huitzilopochli, the Mexican god of death, who is often represented by a death's-head.

In regarding the painting as a whole, that which strikes one most forcibly is its highly conventional character, and, indeed, this is a peculiarity which seems to be inseparable from all Aztec and Toltec art. Artistic feeling, of which traces are not lacking here and there, seems to have been sacrificed to the one all-important idea of conventionality. The artist appears to have had no conception of perspective, but the minutest detail of dress is most carefully indicated, both in outline and in coloring. The wall was, in fact, not intended as a work of art, but as a pictographic record of certain important events; and looking at it in this light, we can understand why artistic feeling should have been sacrificed to minuteness of detail, for no doubt the most insignificant detail in dress and ornament conveyed a meaning to the initiated which to us is forever lost.

Seven colors were employed in painting the stucco, namely, black, blue, green, gray, red, white, and yellow. On the east wall and the eastern half of the north wall the background is dark blue; on the west wall and the western half of the north wall it is pink.

The faces, arms, legs, and other parts of exposed naked skin are usually red or yellow. The figures themselves, together with all the elaborate details of their dress and ornament, are outlined in fine black lines. When first discovered the colors were very brilliant, but after exposure to the light for a day or two, a great deal of their luster was lost, and it became necessary, as each figure was uncovered, to roof it in with palm leaves in order to protect it from the sun and rain. The figures were exposed one at a time; otherwise, by the time two or three had been copied, the rest would have faded so that it would have been impossible to copy the original colors. A sheet of tracing cloth, sufficient to cover the whole figure, was then tacked over it and an accurate tracing obtained, which was afterward transferred to drawing paper. Any mistake that might have been made in the outline of the figure or its ornaments were then rectified. Finally, the colors were applied exactly as they occurred in the original. By the time the whole had been copied, the earlier exposed figures were much defaced from the action of the weather, and as there was no way of preserving the wall, I removed the stucco on which two of the most perfect of the remaining figures were painted. This, owing to the soft layer at the back of the stucco, already referred to, was readily accomplished.

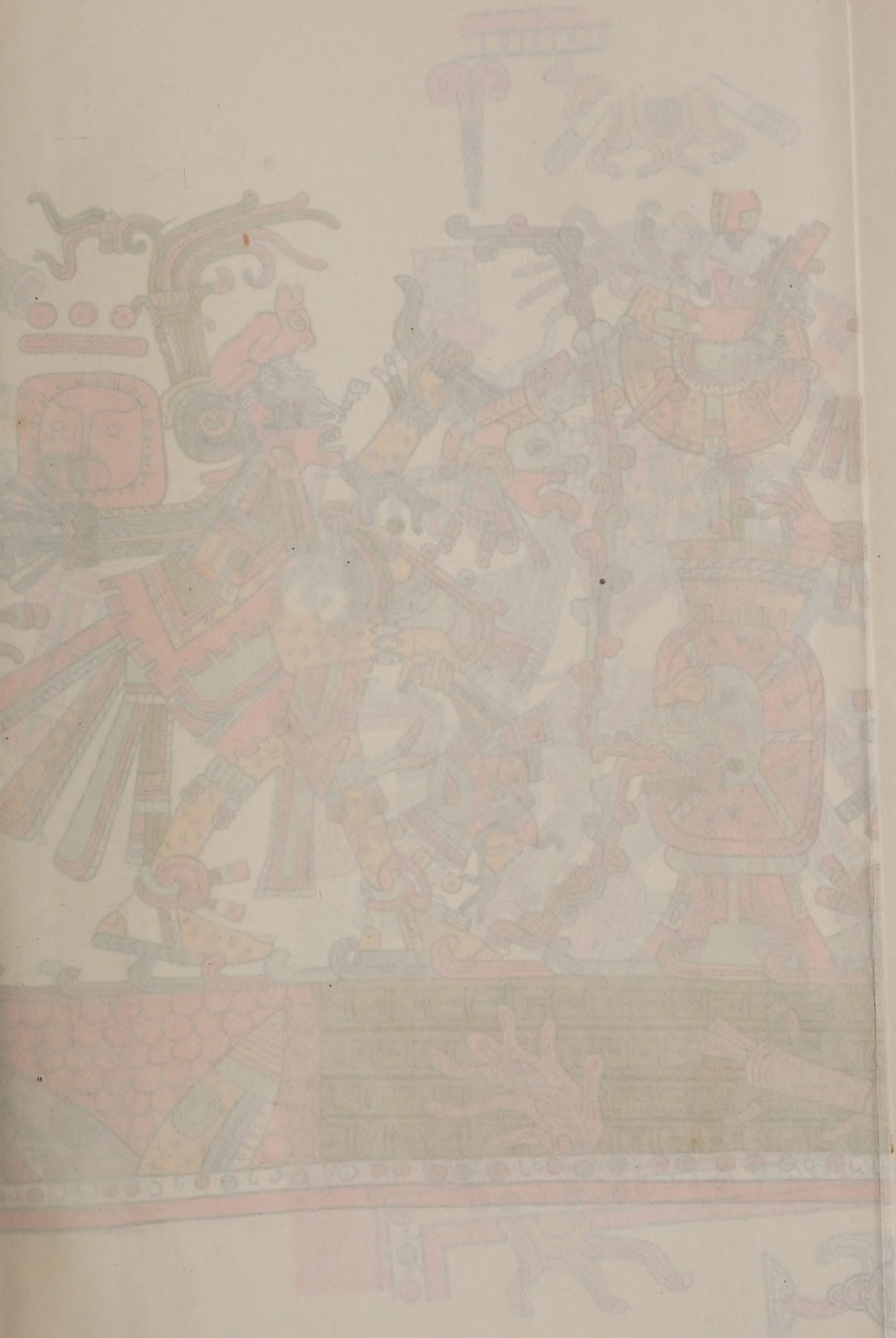
HISTORICAL DATA GAINED BY STUDY OF MOUND 1

Three interesting questions present themselves with reference to these painted walls:

1. By whom was the building erected and the walls painted?
2. By whom, and why, was the building destroyed, and the mound erected around it?
3. When did these events, severally, occur?

The Builders of the Mound-covered Temple

In answering the first of these questions, the hieroglyphics which still remain will, I think, materially assist us. The large sheet of hieroglyphics on the east wall has, as I have already explained, been permanently lost; but scattered over the rest of the painting are no less than 21 complete glyphs. These are unquestionably of Maya or Toltec origin. The sign of the 20th day—named Ahau—of the Maya month, occurs no less than nine times in the course of the painting, namely, beside figures 2, 4, 5, 7, and 8 of plate XXIX, figures 5, 7, and 8 of plate XXX, and figures 1 and 3 of plate XXXI; and possibly as a component part of the glyph opposite the face of figure 2, plate XXIX, and also of that placed above figure 6, plate XXIX. It will be observed that these symbols differ very slightly one from another and that all of them resemble very closely those given by Landa, and those of the



PAINTED STUCCO ON WEST WALL, MOUND 1, SANTA RITA ⅛

LITH. BY A. HOEN & CO. BALTIMORE MD.

codices. The lower part of the glyph placed immediately above the head of figure 6, plate XXIX, is a typical representation of Imix, the first day of the Maya month; and possibly the upper part of the glyph placed in front of the face of figure 9, plate XXIX, is meant to represent the same day. In the first case there can be no doubt as to the identity of the symbol, for all its characteristic features are present, namely, the black spot at the top, the semicircle of dots below, and below this again the row of perpendicular lines. The second symbol is not by any means so typical. A small circle takes the place of the black spot, the dots are wanting, and the perpendicular lines are hooked at their summits; nor does it seem possible that in the same painting such wide variation should occur.

The outer and upper of the three component parts of the glyph opposite figure 6, plate XXIX, may possibly be meant to represent Akbal, the third day of the Maya month, though it bears a strong resemblance to the Ahau sign.

The lower right-hand part of the glyph opposite the left foot of figure 8, plate XXIX, evidently corresponds to the lower part of the glyph opposite the face of figure 9, plate XXIX; there can be little doubt that both these symbols represent Manik, the seventh day of the Maya month. In dealing with this symbol in his Day Symbols of the Maya Year,[1] Professor Cyrus Thomas says:

> As Brasseur de Bourbourg has suggested, this [i. e., the Manik symbol] appears to have been taken from the partially closed hand, where the points of the fingers are brought round close to the tip of the thumb. Whether intended to show the palm or back outward is uncertain, though apparently the latter. . . . As this interpretation of the symbol is quite different from that given by other writers, some evidence to justify it is presented here.

It will be observed that immediately below the Manik symbol, in front of the face of figure 9, plate XXIX, there is represented a right hand with the fingers flexed toward the tip of the thumb, the back of the hand being outward; the outline of this hand is almost precisely similar to that of the Manik symbol placed immediately above it, thus confirming, I think, beyond question, Professor Thomas's interpretation of the signification of the symbol, both as to the fact of its representing the human hand and as to the position in which the hand was held. The lower right-hand part of the glyph placed above figure 4, plate XXIX, bears a strong resemblance to the symbol used in the Troano codex to represent Cauac, the 19th day of the Maya month. The upper right-hand division of the glyph placed in front of the head of figure 8, plate XXX, is remarkably like the symbol used in the codices for Ben, the 13th day of the Maya month; the chief difference between the two is that in the codices the line which divides the glyph in two parts is horizontal, whereas in the painting it

[1] Cyrus Thomas, Day Symbols of the Maya Year; Washington, 1897, p. 232.

is vertical. Immediately behind the head of the individual portrayed in figure 5, plate XXIX, will be observed a gylph made up of five component parts, two above and three below. The upper left-hand division and the lower central division unquestionably form together the Maya symbol for the cardinal point east, named "likin"—the lower division standing for "kin," day, and the upper or Ahau symbol for "li," the consonant element of which is "l." This is the generally accepted interpretation of the symbol, but in the present case it can hardly hold good, for above the Ahau symbol are two bars and three dots, which stand for 13 (each bar representing 5, and each dot 1), showing that the Ahau symbol, though combined with the kin symbol, is not, at least here, used phonetically, but is employed simply to represent the last day of the Maya month.

Turning again to the figures themselves we can not help being struck with their remarkable resemblance to those of Yucatan and southeastern Mexico on the one hand, and to those found in the ruined cities of Guatemala and Honduras on the other. The most striking points of general resemblance are the similarity in shape and fashion of the headdresses, sandals, wrist and leg ornaments, the conventional treatment to be observed in all the human figures, and the fact that all are shown in profile. In the receding forehead, hooked nose, and somewhat prominent chin, which are characteristic of nearly all the figures, they resemble perhaps more closely the bas-reliefs of Palenque and Lorillard City than those of Yucatan and Honduras. The vast headdress, composed of jewels and plumes of feathers, decorated in most cases with the head of an animal immediately above the face—employed as a distinctive sign or badge by the upper class—the enormous square or round ear ornaments, with a pendant from the center, the sandals, elaborately decorated from heel to instep, and fastened in front with a gaily-colored bow, the wristlets of beads, also in many cases decorated with bows, the circlets, worn round the legs either just above the knee or just above the ankle, together with the nose and lip ornaments, are all common to Mexico, Yucatan, Guatemala, and Honduras.

But besides showing these points of general resemblance, certain of the figures appear, when allowance is made for the differences which would necessarily exist between a bas-relief cut in stone and a painting, to be almost identical with those found elsewhere. These are figures 3, 4, 5, and 8, plate XXX. The resemblance between figure 3, plate XXX, and the left-hand figure in the Temple of the Cross at Palenque has already been adverted to, and this figure bears an equally strong resemblance to a bas-relief in stone from the ruined city of Labphak, in Yucatan.[1] In each case the figure is holding elevated in one hand a small object, on which is squatting a dwarf or baby, which is

[1] John L. Stephens, Incidents of Travel in Yucatan, vol. II, p. 164.

apparently being presented as an offering or sacrifice. The dress of the two figures is very similar. A huge headdress projecting forward for a considerable distance above the face is ornamented with feathers and jewels; a bead-decorated cape and the usual large earrings are worn by both. In the glyph placed above the Labphak figure is seen a cross, and the same symbol is also to be observed in the headdress. In the glyph placed between figures 3 and 4, plate XXX, the same symbol also appears. The cross is in both cases of the same shape.

In figures 4 and 5, plate XXX, the lower part is unfortunately very much damaged; but if the upper part of the figures be compared with the bas-relief sculpture in the Temple of the Cross at Palenque, it will be seen that the subject is the same. In the center of the picture is a symbolic bird with a long tail and eagle's talons, standing in the one case on top of a cross, in the other on top of an Ahau symbol, and on each side is a human figure apparently making offerings to this bird. Above figure 4 the cross forms a prominent part of the hieroglyph.

The resemblance between figure 8, plate XXX, and the bas-relief in stone from Casa 4 at Palenque[1] has already been noticed. The huge prominent noses, the toothless jaws and prominent chins, the similar headdresses with the eagles' heads in front, and especially the feather-decorated serpents twined around the bodies, show, without doubt, that both of these figures are meant to represent the god Quetzalcoatl.

On the strength of this evidence, then, I think we may fairly infer:

(*a*) That this building was the work of people of the same nation which built the ruined cities of Yucatan, Gautemala, and Honduras; but that, as their style and method of execution were more like those of the builders of the cities of southeastern Mexico, they were probably more closely allied to, and more nearly contemporaneous with, them than with the builders of the other cities.

(*b*) That in the absence of all other evidence the hieroglyphics would alone prove that the building was the work of a branch of the Maya Toltec nation.

The Destroyers of the Mound-covered Temple

We can pass now to the second question, namely, by whom, and why, was the building destroyed and the mound erected over it?

In certain other mounds at Santa Rita, immediately to be described, there were found, buried superficially in each mound, the fragments of two pottery images, and more deeply a number of small painted pottery animals, the latter either inside of or immediately adjacent to large pottery urns. The similarity between these clay figures and

[1] John L. Stephens, Incidents of Travel in Central America, vol. II, p. 353.

those painted upon the temple wall is very marked. The same conventional treatment is to be observed in both. The huge head, the small body and limbs, the elaborate headdress, the large round earrings, and highly ornate sandals are the same; and in two of the clay images, figures 1 and 3, plate XXXII, monstrous heads similar to those worn by the figures on the stucco are worn as ornaments in front of the headdresses. Figure 2, plate XXXIV, represents the lower part of the face of one of these clay idols. If it be compared with the head of figure 1, plate XXXI, and with the head held in the left hand of figure 3, plate XXXI, both from the wall, it will be seen that the beard and mustache are treated in the same conventional manner in each. In figure 1, plate XXXII, the curious ornament below the left eye of the face in the idol's headdress is the same as that below the eye of figure 8, plate XXX. Again, the ornament held in the hand of figure 1, plate XXX, is precisely similar to one dug up with figure 2, plate XXXII. These instances of correspondence in detail are very numerous, but enough has been cited to show that it is impossible to look upon the resemblance between the clay figures and the painted stucco as fortuitous. We must, on the contrary, regard them as the work of the same people. It is of interest to note here that the monster's face which decorates the headdress of figure 3, plate XXXII, is the counterpart of a face found at Quirigua, and described at some length by Mr Diesseldorf.[1] There is also a close resemblance in coloring, ornamentation, and general style between the painted stucco and the painted pottery animals. The same colors are used and the same fine black lines are employed for outlining in each case. If figures 3, 4, and 7, of plate XXXIV, be compared with the snakes' heads seen to the right of figure 8, plate XXX, and with the snake's head below figure 9, plate XXIX, it will be seen that exactly the same ornament is placed both above and below the eye in each case. The central part of mound 2, from which some of these animals came, was constructed almost entirely of large blocks of limestone, and on some of these, which were squared, traces of painted stucco were still visible, similar to that found on some of the stones which formed the mound around the painted wall and no doubt having the same origin, i. e., the broken down south wall of the building. Mound 2 had also been erected over a building, and it was on its floor that the urn and animals had been placed when the top was added to the mound. Furthermore, if the painted walls of the temple had been wantonly destroyed by an enemy, or by some barbarous tribe coming down from the north, the destruction would have been complete; nor would they have taken such care, as we have seen was taken, to preserve the greater part of the painting by erecting a mound around it.

[1] See Aus den Verhandlungen der Berliner Anthropologischen Gesellschaft. Ordentliche Sitzung vom 21ten Dec., 1895.

We may therefore, I think, safely conclude that the builders of the temple or their descendants were also its destroyers, though their method of destruction—paradoxical as it sounds—preserved it for posterity probably better than any contrivance which they could have employed for its permanent preservation.

As to the reason for this partial destruction and burial of the temple, we know that the Maya regarded the five intercalary days at the end of each year as unlucky and ill-omened, and that during them they were in the habit of destroying their household pottery utensils, together with some of their small household gods, which were renewed again for the new year. Furthermore, they intercalated twelve and one-half days at the end of every cycle, or period of fifty-two years, which were regarded as especially ill-omened.[1]

It is not improbable that this painted stucco partially underwent the fate of other images of the gods during one of these especially unlucky periods at the end of the cycle;[2] for, as I have pointed out, the stucco had evidently been renewed twice, as two layers were found beneath the most superficial one. These obliterations and renewals may have taken place periodically as the unlucky periods came round and passed, till finally the period came when the temple was itself destroyed in the manner already described.

While searching for mounds in the bush about 15 miles north of Santa Rita I came across a large inclosure, the walls of which were 4 feet thick, and, though much broken down, had been about 6 feet in height. The inclosure was in the form of a parallelogram, three-quarters of a mile long by half a mile broad. Within it were the ruins of a church, in very fair preservation, the chancel, with the exception of its roof, being quite perfect. This had evidently been a fortified inclosure built by the Spaniards, and, from the fact that it was so near to Bacalar, which was one of their earliest settlements in Yucatan, and that all record of it has been lost, it was probably erected not very long after the conquest. It may be that the worshipers at the Santa Rita temple, finding themselves in such close proximity to a fortified Spanish settlement, and knowing that the conquerors took every means in their power to propagate the new and eradicate the old religion, as a last resort employed this method of preserving at least a portion of the sanctuary of their god from the sacrilegious hands of the invaders. Either of the foregoing explanations would account for the manner in which the temple had been at the same time destroyed and preserved.

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[1] See Antonio Gama, Descripcion, parte 1, p. 52 et seq. Dr Cyrus Thomas denies any intercalation beyond the annual one, and his proof certainly appears convincing. See Cyrus Thomas, The Maya Year, p. 48.

[2] "As soon as they were assured by the new fire that a new century, according to their belief, was granted to them by the gods, they employed the thirteen following days . . . in repairing their temples and houses and in making every preparation for the grand festivals of the new century."—Francisco Clavigero, History of Mexico, book 6, sec. XXVI.

Probable Date of the Building of the Temple

Let us turn to the probable age of the temple. We know on the authority of Veytia and Ixtlilxochitl, probably the most reliable of the historians who chronicle the dim and uncertain early history of the Toltec, that the remnant of that nation after pestilence and disastrous wars had decimated them, migrating from Tula, found their way, some to southern Mexico, where they founded Palenque and Lorillard, others farther south still to Guatemala and Honduras, while others turned eastward into Yucatan.[1] This migration took place somewhere about the end of the eleventh century.[2] A long period must have been necessary for the scattered remnant of the Toltec to have made this long journey of nearly 1,000 miles, before reaching the shores of the Caribbean sea, on foot, crossing rivers, swamps, and mountains, and encountering everywhere a barrier of dense and impenetrable bush. Probably a century would be rather under than over the mark in estimating the time necessary for this emigration and for the people to have become sufficiently settled in their new home to erect an elaborately decorated temple. This would place the date of the erection of the temple somewhere between the end of the twelfth and the end of the fifteenth century; but if, as I before suggested, the painted stucco was renewed only at the end of every cycle of fifty-two years, and the burial of the temple was caused by the fear of Spanish invasion, then, as there were two layers beneath the outermost layer of stucco, the temple must have been at least 104 years old at the time of its destruction; and judging from the brightness of coloring and excellent preservation of those parts of the painting spared by the dampness, the outer layer could not have been applied for any great length of time when the mound was erected which preserved it to the present day—which would place the date of the erection of the temple toward the end of the fourteenth or beginning of the fifteenth century.

The general design painted on the stucco appears to be continuous around the building, and to represent, first, a battle; next, the prisoners being led captive, some undergoing torture; finally, the worship of Quetzalcoatl and the offering of sacrifices to the god of death. On the east wall was depicted a spirited contest between two warriors, though the tracing in this case gives but a poor idea of the original. The first eight figures of the east half of the north wall evidently represent prisoners. The west half of the north wall shows the worship of Quetzalcoatl, the god himself being depicted at the western extremity of the wall elaborately dressed and ornamented.

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[1] Francisco Clavigero, History of Mexico, vol. I, book 2, p. 89.

[2] Ixtlilxochitl, Historia Chichemeca, cap. 3. Veytia, Hist. Antiqua, vol. I, cap. 33.

On the west wall two heads and other objects are being offered to the Mexican god of death.

Figure 3, on the west wall, offering the heads—one in each hand—is obviously one of the victors; but there appears to be little or no difference between his appearance, dress, and ornamentation and that of the prisoners shown in figures 1 to 8, plate XXIX, which would apparently indicate that the combatants were, if not of the same, at least of kindred nations.

OTHER MOUND-BURIED STRUCTURES

Two other mounds at Santa Rita were erected over the ruins of buildings, namely, those marked 3 and 4 in the plan, figure 4.

Mound 3 was situated 115 yards southeast of the painted wall, was almost circular at the base, pyramidal in shape, 62 yards in circumference, and 10 feet high at its highest point. By digging into this mound a wall running north and south was found about 2 feet below the surface. This wall, when exposed in its whole extent, was found to be 18 feet long, 16 inches thick, and built of roughly squared blocks of limestone held together by mortar, which was rotten and crumbling. The summit of the wall was irregular and varied in height from 4 to 7 feet; it extended to the ground level and stood upon a floor of hard cement. At its south end this wall was broken off short; at its north end it joined a wall running east and west, but this latter extended only 2 or 3 feet, and was then broken down. Neither inside nor outside were any traces of painted stucco to be found on either of these walls, nor, in the excavation of the mound, which was built of earth, limestone dust, and rough blocks of stone, were any stones found with traces of stucco adherent to them. There was no cornice on the wall. Numerous pieces of pottery were found in the mound, some rough and ill made, others painted red, black, yellow, and brown, and a few glazed.

Mound 4 was 86 yards in circumference, oval at the base, conical in shape, and 6 feet high at its highest point. Immediately beneath the surface a wall was found running east and west. It was very similar to the wall last described, being built of blocks of roughly squared limestone. It varied in height from 4 to 6 feet, rested on a floor of hard cement similar to that found in the last mound, was not covered with stucco either inside or out, and had been broken off short at both ends. The mound itself was composed of earth, limestone dust, and rough blocks of limestone. Numerous potsherds were found within it, both plain and painted. It was situated 195 yards almost due north of mound 3.

The two last-described ruins differed from the one covered with stucco in that they rested on the ground level, whereas the latter stood on a platform raised 2 feet above it.

MOUNDS CONTAINING POTTERY, IDOLS, AND ANIMAL EFFIGIES

Mounds of the second class, namely, those containing, superficially, the fragments of two pottery idols, and more deeply or on the ground level a number of small painted pottery animals, either within or immediately around a pottery urn, next claim our attention.

Three mounds of this kind were excavated at Santa Rita—2, 5, and 6 on the plan. Mound 2 was situated nearly 500 yards east of the large central mound; it was 30 yards long, 25 yards wide, 96 yards in circumference, and 18 feet high at its highest part. The northern face of the mound sloped gently down from the summit to

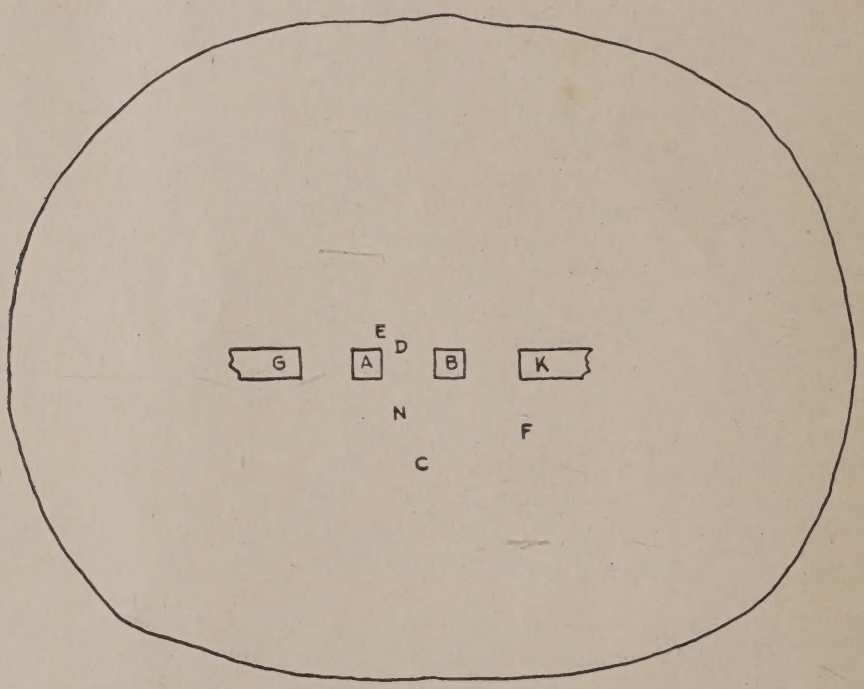


FIG. 6—Plan of mound 2, Santa Rita.

A, B, Pillars. G, K, Walls. E, Place where birds' bones were found. N, Circular chamber. D Place where idols were found. F, Place where cabbage-palm was found. C, Place where painted animals were found.

the base; the southern face was almost perpendicular. When the upper layer of the mound was removed it was found to consist of dark-brown loam with a few pieces of limestone embedded in it. At the bottom of this layer and resting on the one immediately beneath it were found fragments of two idols and a quantity of birds' bones, together with the inferior maxilla of a small rodent. The head of one of these idols (supposed by Mr Diesseldorf to be the conventional portrait of Cuculcan) is shown in figure 3, plate XXXII. The remarkable

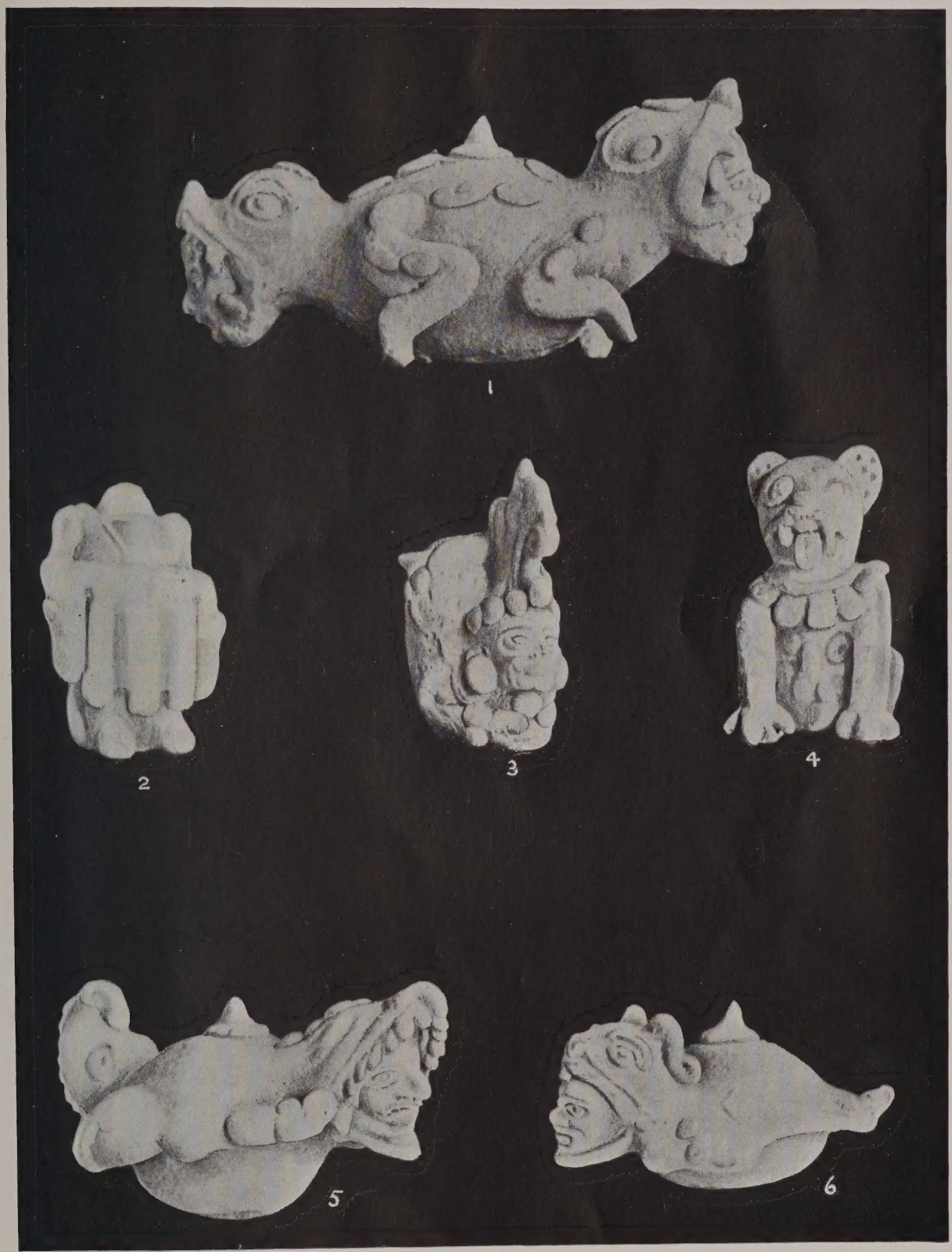
HEADS OF IDOLS FROM MOUNDS 2, 5, AND 6, SANTA RITA

resemblance of the head which adorns its headdress to one found at Quirigua has already been noted. The rest of this idol and the whole of the one which was found with it are so badly broken as not to be worth figuring. The bones were those of the curassow, and, judging by the number of long leg bones which were found in good preservation, probably represented the remains of five or six birds. The bones were found at a point marked E on the plan of the mound (figure 6), close to the idols. With the idols were found a number of rough unpainted potsherds. Immediately beneath the loam the mound was covered with a flat, evenly applied layer of mortar, from 6 to 8 inches in thickness; it was soft and friable and contained in its substance numerous large pieces of limestone. The next layer was composed of limestone blocks, the interstices between which were filled with limestone dust. A large number of the stones were squared, and some retained pieces of painted stucco still adherent to them, having evidently at one time formed part of the south wall of the temple already described. Embedded in the top of this layer, at the point marked F in the plan, was found a piece of cabbage-palm stem 5 feet long, but so wormeaten and decayed that it was impossible to tell what its original use had been. Within this layer the broken tops of two square pillars, A and B in the plan, and of two walls, G and K, on either side of them, first appeared. These two pillars occupied a nearly central position in the mound; they were 3 feet square and were built of large blocks of nicely cut stone. The summits were uneven and had evidently been broken off; the distance between the pillars was 6 feet. The walls were in line with the pillars, placed on either side of them, at a distance of 6 feet from each; they were 3 feet thick, built of nicely squared blocks of limestone, and were broken off at the top and outer ends. The summits of these walls and pillars were at a depth of $2\frac{1}{2}$ feet below the surface of the mound; they passed down through the next two layers—one of cement, one of blocks of limestone—and rested on the tough, thick cement layer which lay immediately over the foundation of the mound. They were 4 feet high and at one time evidently had formed part of the portico of a building with three wide entrances. Judging from the very large proportion of squared stones which were used in the construction of the upper layers of this mound, it would seem that the greater part of the stones of this building had been used in constructing the mound which covered its ruins. The next layer was of cement, 6 to 8 inches thick, and spread evenly over the mound, forming a table-like surface; the cement was rotten and friable. The layer immediately beneath this was composed of blocks of limestone, the majority of which were squared, and so tightly were they packed together with limestone dust that the mass was almost as difficult to dig into as if it had been masonry. In the lower part of this layer, 6 feet below the surface of the mound, at a point marked C in the plan, the pottery urn,

figure 7*b*, was discovered. This urn was 12 inches in height and 46 inches in circumference at its widest part; it was made of smooth, hard pottery, having a uniform thickness of three-sixteenths of an inch; it was unpainted and unglazed, was without a cover, and consequently was full of limestone dust. It rested on the layer of hard cement immediately underlying the layer in which it was buried. This urn, unlike the others, was not inclosed in a stone cyst, and was unfortunately much damaged by a blow of the pickax. Placed all around and above the urn, within 2 inches of it, were found 10 small painted pottery animals and two flint spear heads. The animals consisted of

FIG. 7—Pottery urns from mounds 2, 5, and 6, Santa Rita.

four tigers, five turtles, and one double-headed animal, probably intended to represent an alligator. Two of the animals were placed at each of the four cardinal points around the urn and two above it. The tigers, of which one is represented in figure 6, plate XXXIV, are $4\frac{3}{4}$ inches in height, and are painted red all over. They are represented as sitting up on their hind legs, with their mouths open and tongues protruding. Each animal is hollow and has a small round hole in the center of the back communicating with the interior. One tiger was placed on either side of the urn. All were precisely alike in size and coloring. Of the turtles (see figure 6, plate XXXIII, and figure 1, plate XXXV) five were found. One was placed on either side of the urn



HUMAN AND ANIMAL EFFIGIES FROM MOUNDS 2, 5, AND 6, SANTA RITA

ANIMAL EFFIGIES AND IDOL'S HEAD FROM MOUNDS 2 AND 6, SANTA RITA

and one immediately above it. They vary in length from 5½ to 6½ inches. The bodies of two of them are colored red throughout, the other three are unpainted. The eyes of all are colored black, the eyebrows light blue outlined in black, and the nose red. At the forepart of the body on either side are two human hands and arms, the former tightly closed. The mouth is widely open, and from it protrudes a human head, which the animal is apparently in the act of swallowing. The face belonging to this head is colored light blue, the mouth and lips red, and the eyes and eyebrows black (see plate XXXV, 1). In the ears are large round earrings, which, having caught in the angle to the turtle's mouth on either side, are apparently giving him some difficulty in swallowing the head. The turtles are all hollow and are perforated in the center of the back by a round hole, 1 inch in diameter, which communicates with the interior. When the animals were found, this hole was covered with a small, pyramidal, earthenware stopper, which in plate XXXIII, 6, is seen in situ. The last animal (see plate XXXIII, 5) is 7½ inches in length, and has two heads, one at either end. The specimen shown in the plate was dug up in mound 6, presently to be described, but it is so like the one from mound 2, both in shape and in coloring, that one illustration serves for both. One head is certainly that of an alligator, as is apparent from the huge mouth, formidable teeth, and double row of projections running down the back. Within the widely opened jaws of the animal is seen a human face, the mouth, chin, and forehead of which, as well as the inside of the alligator's mouth, are irregularly smeared with red paint, evidently meant to represent blood. The body of this double-headed animal is unpainted, but is covered with small red spots sharply outlined in black. The other head possesses two eyes and a snout, together with a single row of large curved teeth running from the snout to the neck. There is no sign of a lower jaw. Placed on either side of each head is a human hand and arm having the wrists ornamented with a circle of small, round disks of pottery, colored red. The body is hollow, and midway between the two heads, on its dorsal surface, is a small round hole, communicating with the interior, and covered with a pyramidal stopper, seen in situ in the figure. Within the cavity of the body were found three small oval beads, two of jade and one of some orange-red stone, all nicely polished; a very small obsidian core, 1½ inches in length and about the thickness of a pencil; and a small flat chip of grayish chert. This animal, together with one of the turtles, was placed above the urn. The two spearheads are leaf-shape and are 4 and 3 inches in length, respectively. Both are nicely chipped from yellowish flint, the smaller of the two being grooved on either side at the base, probably for greater security in hafting.

The layer immediately below that which contained these animals was composed of very tough cement and covered the whole mound evenly. It was so hard that even with a pickax it was difficult to make any impression on it. It was 12 inches thick and of a light yellowish color. Upon it rested the two pillars and fragments of walls already referred to, together with the pottery urn.

Below this cement layer and reaching to the ground level the mound was built of large blocks of limestone, rough and unhewn, but neatly fitted together without any mortar or earth between them. Not one of these blocks was worked or showed traces of stucco. Extending downward from the cement layer to the ground level through this last layer was a small circular cyst at the point marked N on the plan. Its upper opening was covered with a slab, over which the cement was continuous. Its floor was the ground, and its sides, though neatly built, were not plastered. It was 3 feet in diameter and contained nothing but a quantity of charcoal.

It seems evident that before this mound was erected there stood on its site a building, of which part of the north wall is now all that remains. This building was erected on a solid stone platform, raised 10 feet above the ground level, and covered with a thick layer of very hard cement. The mound was constructed partly from the stones taken from this building and partly from those of the temple before described.

The urn, the painted animals, the idols, and the bones were placed within the mound at the time the building was destroyed and the upper part of the mound erected over its ruins; the urn and the animals on what had been the floor of the building, the idols and the bones more superficially in the mound. The original stone platform on which the building had stood formed the base of the mound.

The second of these animal mounds, 5 on the plan, was situated 345 yards almost due north of the great central mound. It was 52 yards in circumference, oval at the base, conical in shape, and 5 feet high at its highest point. It was built of earth and limestone dust, together with rough blocks of limestone, none of which were squared or showed any traces of stucco adherent to them. Almost in the center of the mound, a little less than 1 foot below the surface, fragments of two clay idols were discovered, consisting of arms, legs, and portions of two bodies. The face shown in figure 1, plate XXXII, is that of one of the idols. The other head and the remaining pieces are so much damaged that they are not worth figuring. On reaching the ground level, directly in the center of the mound, a small stone cyst or chamber was discovered. It was 18 inches in length, 12 inches in breadth, and 12 inches in height. The floor was the ground; the roof and walls were made of single, roughly hewn, flat slabs of stone. Within this cyst appeared the small pottery urn shown in figure 7 *c*.

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2

ANIMAL EFFIGIES FROM MOUNDS 2 AND 6, SANTA RITA
NATURAL SIZE

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This urn is 5 inches in height and 27½ inches in circumference at its widest part, and is made of unpainted, unglazed pottery, one-eighth inch in thickness throughout. It is covered by a mushroom-shape lid with a small semicircular handle. Unfortunately, in lifting the flat stone which formed the roof of the cyst the point of the pickax was driven through the lid. Within this small urn lay the double-headed alligator shown in figure 1, plate XXXIII. This animal is 8½ inches long from the tip of one snout to the tip of the other. Protruding from the widely opened jaws of each of the heads appears a human face. The mouth of each of these faces is decorated with two small circular lip ornaments, one attached to each of its angles, all exactly similar to those seen on the mouth of the idol shown in plate XXXII, 2. The faces where they are in contact with the animal's jaws, and the jaws themselves, are daubed with red paint to represent blood; other parts of the faces and the whole of the body and the heads of the animal are painted dark green.

The third and last mound of this kind, 6 in the plan, was situated 933 yards southwest of the large central mound. It was the smallest of the three, and was circular at the base, conical in shape, 30 feet in diameter, 32 yards in circumference, and 5 feet high at its summit. Nearly 2 feet below the surface, toward the center of the mound, a large quantity of very rude, ill-made pottery was discovered, together with the fragments of two pottery idols. One of these is by far the finest and most perfect found in any of the mounds. It is 16½ inches in height from the top of the headdress to the sole of the sandal, and is shown in figure 2, plate XXXII. The left arm was also found, but has not been joined on in the figure. The pieces were not all together, but were spread about over an area of two square yards. The other idol was so fragmentary that it was not worth figuring; but the lower half of the face, as it differed from all the rest in possessing a beard and mustache, is shown in figure 2, plate XXXIV. Two small, oval, clay beads were found with the idols.

This mound was composed throughout of earth and large, rough blocks of limestone. Within 50 yards of it is an excavation of some size, from which the material to construct it was probably obtained. When the ground level was reached a small stone cyst built of roughly hewn slabs appeared. It was 2 feet long, 2 feet broad, and 18 inches high. When the stone slab which formed the roof was removed the urn shown in figure 7*a* was found. This urn was circular in shape, 11½ inches high, and 37 inches in circumference at its widest part, and stood on three long, round, hollow legs. It was of unpainted pottery three-sixteenths inch thick throughout, and was covered by a mushroom-shape lid with a semicircular handle. When the lid was removed 19 small objects were found within the urn, completely filling it. Of these, 13 represent animals, 1 a fish, and 4 human figures, while 1 is

a small circular jar, decorated outside with a human figure supporting itself on its forearms, the legs being held up in the air. Of the animals, 4 are tigers, 1 of which is shown in plate XXXIII, 4, and in plate XXXVI. Each is 4½ inches in height. The body is colored white and covered with red spots encircled with black. The head is red, the ears white, and the eyes black. Each has a collar of small, oblong pieces of pottery colored alternately green, white, and red. The male genital organs are prominently represented, as the animals are sitting up on their hind legs. Each figure is hollow, and is perforated at the back by a small round opening. There are 9 alligator-like animals, 1 of which has already been described, as it is the exact counterpart of the one found in mound 2.[1] Others are shown in figures 3, 4, 5, and 7 of plate XXXIV, and in plate XXXV, 2. Four of the 9 resemble figure 5, and are evidently intended to represent alligators, judging by the shape of the body and legs, the spines on the tail, and the double row of excrescences extending along the center of the head and back. They vary from 5½ to 7 inches in length. The bodies of two of them are colored red, and of two, white; the eyes and spines of all are colored black. A black streak passes around the jaws, and the forefeet are divided into three toes by thin black lines. The bodies are all hollow, with a circular opening in the center of the back covered by a pyramidal stopper, seen in situ in the figure. Figures 3 and 4, plate XXXIV, are not unlike the preceding, but they have the curious curved ornaments before noticed both above and below the eyes. The tails are bifid, and the figures possess a horn-like excrescence attached to the tip of the nose. The double row of tubercles extending along the head and back is wanting. Figure 7 and plate XXXV, 2, differ from figures 3 and 4 in possessing a pair of lateral, fin-like limbs instead of four legs, and figure 7 has a single, triangular dorsal fin placed in the center of the back. The hole communicating with the interior is at the side, to allow for the dorsal fin, and there is no stopper covering it. The bodies of two of the last four animals are red, and of two, white. The ornaments above the eyes are painted light green, outlined in red. Figure 1, plate XXXIV, is probably intended to represent a shark. The body, which is 7 inches long, was first painted white and afterward red, but most of the paint has worn off. Figure 3, plate XXXIII, shows a small round pot, 3 inches in height, to the outside of which is attached a human figure supporting itself on its forearms while its legs are held up in the air above the head. On the head is worn the usual enormous feather-decorated headdress, and around the forehead, wrists, and ankles are bands of small round pottery disks. The face

[1] There can be little doubt that this animal, together with its duplicate, also the double-headed alligator, and the turtles, are all intended to represent the Aztec Cipactli, a mythic animal at times taking the form of a swordfish, a shark, an alligator, and an iguana; it symbolizes the earth, and, as in the above cases, is often represented with a human head between the jaws to signify that all flesh returns to its original earth, and to death.

1

2

TIGER EFFIGY FROM MOUND 6, SANTA RITA
NATURAL SIZE

A. HOEN & CO. BALTIMORE.

1

2

HUMAN EFFIGY FROM MOUND 6, SANTA RITA
NATURAL SIZE

A. HOEN & CO., BALTIMORE.

is colored blue, the mouth red, the eyes white, and the eyebrows black. This ornament of a human figure supporting itself on the forearms while the legs are held above the head is not an uncommon one, as I have two vases similarly ornamented, one found in a mound on the Chetumal bay, the other in a mound near Rio Hondo. It is also seen as a bas-relief on stone over a doorway at Tulum, on the coast of Yucatan, and is scratched on the stucco among a number of other figures at Mount Molony, on the borders of Guatemala and British Honduras. The last of the contents of the urn is shown in figure 2, plate XXXIII. There were four of these figures, all precisely alike. Each is $4\frac{3}{4}$ inches in height, and represents a man in a squatting position, holding in front of him, with both hands, a veil, which conceals him from forehead to feet. The body is colored white and the arms red. Across the forehead is a red stripe, and the veil is colored with alternate red and white vertical bands. The headdress differs from that usually associated with the ancient inhabitants of Central America and reminds one somewhat of representations of the ancient Egyptian headdress.

No human bones were found associated with any of these animals, and it seems probable, judging from the excellent state of preservation in which the birds' bones taken from mound 6 were found, that had there been a human interment, some trace of it would have been discovered. Mounds 5 and 6 were evidently built for the special purpose of containing the idols, urns, and animals which were found within them. In mound 2, on the other hand, the objects were placed on a preexisting platform which had supported a building, and were covered by a capping of earth and stones, the latter taken mostly from the building. All the animals appear to symbolize death and destructiveness. The tiger, the alligator, and the shark must have been, in the bush, the river, and the sea, respectively, the most destructive animals known to the aboriginal inhabitants; and in the one exceptional case of the turtle, which might be looked upon as a comparatively harmless animal, it is represented in the act of devouring a human being.

A LOOKOUT MOUND

Turning to the third class of mounds, we will take first the large central mound, 7, around which the others appear to be grouped. It is circular at the base, conical in shape, 57 feet in height, 471 feet in circumference, and is built of blocks of limestone held together with mortar. Indeed, so hard is it all over that the idea of excavating it had to be given up. On the south side of this mound, and, continous with it, is a circular earthwork 100 yards in diameter. The walls inclosing the circular space vary from 10 to 25 feet in height. They are higher toward the north, where they are continuous with the large mound, and lower toward the south, where an opening 30 feet wide

gives access to the inclosure. About 20 yards south of this opening is a small mound 4 or 5 feet in height. In the center of the space, inclosed by the earth walls, stands a small mound 3 feet in height and 40 feet in circumference. Excavations were made in the earth wall, in the space inclosed by it, and in the small mound in the center of the space. Nothing, however, was found except a few potsherds such as may be found by digging almost anywhere on the estate. The walls were found to be built of earth and limestone blocks. Immediately to the north of the mound is a huge excavation, from which limestone has been quarried. There can be little doubt that this was the source whence material to build both walls and mound was drawn. This large mound and the inclosed space adjoining probably formed together a lookout station and a fort. The mound itself is one of a series, all of which possess certain characteristics, marking them as lookout or signal mounds. They are all more than 50 feet in height, and have a flat, table-like surface at the top, a comparatively small base, and consequently very steep sides. They are always surrounded by a number of smaller mounds of various sizes and uses, which probably indicate the site of ancient populous centers; and they are usually, though not invariably, associated with an earthwork fortification, either actually joined to them, as at Santa Rita, or at some little distance away, as at Adventura, the next mound of the kind in the series, which will be described at another time. Such of these mounds as have been opened have not contained pottery or stone objects, or anything to show that they had been used as sepulchers. As has been proved by experiment, a large fire lighted on the flat surface at the top of any one of these mounds can be seen plainly over the intervening bush—the country being perfectly flat—either by the smoke during the day, or by the flame during the night, from the top of the mound on either side of it in the chain. Beginning at the top of Chetumal bay, these mounds extend in a chain for nearly 150 miles, first following the coast line, then trending inland in a southwesterly direction. The intervals between them are in no case greater than 12 miles or less than 6 miles. Each of the mounds forming part of such an extended chain, along which it was easy to convey intelligence either by day or by night, standing also in the center of the town or village and adjacent to a fortified position into which the inhabitants could retire, would form a most useful signal station from which to observe and communicate the approach of an enemy, either by sea or land; and there can, I think, be little doubt that this was the use for which they were designed.

A SEPULCHER MOUND.

At a distance of 691 yards almost due east of the large central mound was situated the mound marked 9 in the plan. This was the only mound excavated on the whole estate which had unquestionably

GREAT CENTRAL LOOKOUT MOUND (7) AT SANTA RITA, WITH EARTHWORK

been used solely for sepulchral purposes. It was one of the smallest mounds explored, being only 15 yards in circumference and 3½ feet in height at its highest point. It was nearly circular at the base and flat on top, and was built of earth and rough blocks of limestone. Nearly in the center of the mound, at the ground level, a human skeleton was discovered, the head pointing toward the north. The bones were so brittle that in the attempt to remove them they were very much damaged. The skull was full of earth, and, while being lifted out, it collapsed into numberless pieces from its own weight and that of the earth which it contained. The fragments of the bones were removed, and, after exposure to the air for a few days, they hardened considerably and could be handled without injury to them. The bones were apparently those of a male of from 5 feet 4 inches to 5 feet 6 inches in height. Lying by the side of the skeleton were a conch shell with the apex broken smoothly off, as if it had been used as a trumpet, numerous broken pieces of conch shells, a roughly chipped flint spearhead 4½ inches in length, and an oval flint hammer stone. Associated with these two latter implements were four sharp-pointed conical pieces of shell, the ends of which had evidently been ground to a point as if for use as boring implements. They were manufactured from the whorls in the interior of conch shells. The contents of this mound appear so unlike to the contents of the other mounds at Santa Rita that one can not help thinking that it belongs either to a different people or a different period. This supposition is rendered more probable by the fact that along the shores of the Chetumal bay, a few miles from Santa Rita, the sea is rapidly encroaching and exposing interments very similar to the one described, except that in most cases no mound marks the position of the grave. The sharp shell implements are invariably to be found in these graves, together with pottery and flint implements, all exceedingly rude and archaic.

UNCLASSIFIED MOUNDS

Three hundred and ninety yards to the northwest of the large central mound was situated the mound marked 8 in the plan. This mound was roughly circular, flat on the top, 90 yards in circumference, and 5 feet high at its highest part. I was informed by some of the old laborers on the estate that some years previously, while stones were being dug from this mound for the purpose of erecting a tank, a number of what they described as large stone idols had been discovered. Of these I was, unfortunately, unable to discover the subsequent history; but there can be little doubt that, together with the other stones, they were squared for building purposes. This is rendered more probable by the fact that in examining a well close at hand, which had been built at that time, I discovered a large stone tiger's head projecting inward from the masonry, into which it had been built. As, however, the whole mound had not been dug down I set to work excavating that

portion of it which was left. It was composed of earth and blocks of limestone. At a depth of about 2 feet below the surface were found (1) a large tiger's head cut in stone; (2) a turtle cut in stone and colored; (3) the lower part of a human mask; (4) a small, smooth, globular piece of jade. Potsherds, both painted and plain, were found in large quantities at all depths throughout the mound.

The tiger's head, which measured 18 inches from the forehead to the tip of the protruded tongue, evidently at one time formed a gargoyle-like ornament on some building, as behind the head the stone from which it was cut had been squared for a distance of 14 inches, obviously for the purpose of being built into masonry. The head is, as is well shown in plate XXXIX, much weathered, the soft limestone being eaten away to such an extent that at first sight it is difficult to determine what it is meant to represent.

If this head be compared with the tiger, figure 4, plate XXXIII, it will be seen that, in the shape of the head, contour of the face, protruding, pendant tongue, prominent round eyes, and square upper incisor teeth, the resemblance is sufficiently strong to warrant the assumption that both are products of the same race, if not of the same artist. The turtle is 18 inches in length by 12 inches in breadth, and is nicely cut from a single block of limestone. It is an exact copy of the turtle shown in figure 6, plate XXXIII, excepting that the mouth, instead of containing a human head, is closed. The whole animal is painted red, and in the center of the back is a round hole leading to a considerable cavity which has been hollowed out in the interior. The hole is covered by a circular disk of limestone 3 inches in diameter. The human mask is made of rough pottery. The upper part of the face is missing; it is $3\frac{1}{2}$ inches from ear to ear; the mouth is puckered up into a small, round hole as if in the act of whistling.

The mound marked 10 on the plan was 98 yards in circumference, and very flat, nowhere exceeding $3\frac{1}{2}$ feet in height. It was constructed throughout of small pieces of limestone mixed with clay, and contained an enormous quantity of potsherds. These were for the most part rough and ill-made, but a few were painted and glazed. Nothing further was found in the mound till the ground level was reached, when an equilateral triangle, built of stone, was disclosed. Each side of the triangle was 18 feet in length, and was composed of roughly cut slabs of stone stuck upright in the ground and in contact on either side with similar slabs. The sides of the triangle varied in height from 8 to 18 inches. The upper edges were irregular, the lower sunk to a depth of 5 or 6 inches in the ground. The stones were removed and the earth dug up, both in the center and along the sides of the triangle, but nothing whatever was discovered.

The mound marked 11 on the plan was situated 1,130 yards southwest of the large central mound. As, in all the former mounds which had been excavated, whatever of interest they had contained

had been found at or near the center, an excavation 14 feet by 7 feet was first made in the center of this mound down to the ground level. For the first 3 feet the mound was composed of very small stones and earth. Beneath these was a layer of rough blocks of limestone and limestone dust reaching to the ground level. At a depth of about 4 feet a smooth, oval, flattened stone 5 inches in length was found, the marks on which showed that it had been used as a whetstone. With the exception of potsherds, nothing else was found in this excavation, which was afterward enlarged on all sides, but with a similar result, nothing whatever but stones and earth being found.

The mounds 12, 13, 14, 15, and 16 in the plan lay in a group to the northeast of the large central mound, and within 200 yards of it. They were all circular at the base and roughly conical, and were all nearly of the same size, varying from 30 to 35 yards in circumference and from 4 to 6 feet in height. In contents and construction they all proved so much alike that a description of one will suffice for all. The two upper feet consisted of earth, with a few blocks of limestone; beneath this, to the ground level, the mound was built of limestone blocks, the interstices between which were filled in with limestone dust. A few potsherds were found, for the most part rough and unpainted. At a depth varying from 2 to 3 feet, or about midway between the summit of the mound and the ground level in each case, a small stone cyst was found, 18 inches square, the walls, roof, and floor each composed of a single slab of roughly cut stone. These cysts were in all cases perfectly empty, and were placed as nearly as possible in the center of the mound. Nothing further was found in any of the mounds.

The mound marked 17 on the plan stood 500 yards almost due east of the large central mound. It was oval in shape, flattened on the top, 85 yards in circumference, and 6 feet high at its highest point. The northern face was almost perpendicular; the southern sloped gradually to the ground level. The upper two feet consisted of earth and blocks of limestone. Near the center of the mound, at a depth of 1 foot, were found the fragments of two idols very similar to those found in mounds 2, 5, and 6. Close to these were found: (1) The flat, triangular head of a serpent, with protruding, forked tongue; this was made of pottery, and had been broken off from the body; (2) a small, pyramidal pottery stopper, like those placed over the openings in the pottery animals; (3) a dragon's head in pottery, with an elaborately decorated headdress; (4) a small pottery mold, 4 inches in height, for making masks. After first oiling the inside of it, I filled this mold with plaster of paris, and it turned out a face very like figure 3, plate XXXII, but without the headdress. Beneath the layer of earth and limestone came a layer of limestone blocks, many of which were squared. This was the last mound opened, and as in mounds of similar construction in which two broken idols had been

found superficially, an urn with pottery animals had invariably been found on digging deeper, I felt almost certain that here, also, they would be discovered toward the center of the mound. But though an excavation 15 by 8 feet was made through the center down to the ground level, nothing further was brought to light.

UNEXCAVATED MOUNDS

Turning next to those mounds at Santa Rita which have not as yet been excavated, we find that the first of these, 18 on the plan, is by far the largest mound on the estate, and is indeed the largest mound that I have seen in the colony. It is situated 100 yards almost due south of the large central mound, is 412 yards in circumference, oval in shape, flat on the top, and 10 feet high. This mound has never been dug into.

Mound 19 is very similar to the last and is in line with it and the large central mound. It is 10 feet high at its highest part, roughly circular at the base, and 270 yards in circumference.

Mound 20 on the plan is situated 400 yards southwest of the large central mound. It resembles in shape the two preceding mounds, but is much the smallest and lowest of the three, being 83 yards in circumference, flat at the top, circular at the base, and 3½ feet high at its highest point.

These three mounds have been described as being typical of a class of mound which is numerous in the bush all round the estate and throughout the whole of the northern district of the colony. Mounds 18 and 20 exhibit the greatest variation in size and height found among this class, all the members of which are intermediate in size between these two. I have opened only one of these mounds as yet, but as nothing was discovered inside except potsherds, I was not much encouraged to proceed with the excavation of the others.

Mound 21 is situated about 1,000 yards southwest of the large central mound. It is almost semicircular in shape, and is 30 yards in length, measured along the curve. The east end is much broader and higher than the west; the mound, in fact, resembles the half of a pear, in which the stem has been bent round through a semicircle toward the head. The mound is 5 feet high and 24 feet broad at its head, and gradually lessens till it is only 3 feet high and 8 feet broad at its tail. The convexity faces north, the concavity south. At the point marked 22 on the plan there are several of these mounds very like the one just described, both in shape and size. A number of similarly shaped mounds are found in the bush surrounding the estate, and in other parts of the district they are common. At Sateneja, a village on the coast about 20 miles from Santa Rita, a large number of these mounds of various sizes are so arranged as nearly to inclose a roughly

STONE TIGER HEAD FROM MOUND 8, SANTA RITA

circular space very near the seashore. Their concavities all face toward the space which they inclose; their convexities face outward, and they were obviously constructed for defensive purposes. Occasionally these mounds are almost circular, the narrow pointed end being produced onward till it passes the broad end, leaving a space 2 or 3 yards across between them as an exit or entrance.

These mounds vary in length along the curve from 30 to 100 yards, and in height from 2 to 15 feet. I have opened several of them in various places, but never found anything in them, which fact strengthens the presumption in favor of their being used solely for defensive purposes. Some of those at Sateneja contained a large number of conch shells; but these shellfish are very plentiful along the coast, and when the fish had been extracted the accumulated shells were probably used, merely in place of stones, to build up the mound.

Mound 23 on the plan, situated 217 yards southwest of the large central mound, resembles the latter very closely. It consists of two portions—a large mound, and to the south of this a circular space inclosed by earthen walls, through which is an opening to the south. This mound is 25 feet in height, conical in shape, circular at the base, and slightly over 400 feet in circumference. The walls of the earthwork are continued into it on its south side. Unlike the large central mound, it is loosely built of earth and stone. The walls of the circular earthwork where they join the mound are 12 feet high, but as they approach the opening they become gradually lower. The circular space included within the walls is 80 yards in diameter.

UNDERGROUND ROCK-HEWN RESERVOIRS

Scattered about irregularly among these mounds and in the adjacent bush are a number of circular openings in the ground, leading to small oval chambers hollowed out in the limestone rock. Into some of these chambers it is quite easy to descend, but others have become blocked up, either from the roof caving in or from débris falling through the opening and obstructing it. Those that I have examined are precisely alike in construction and shape, differing only in size, and a description of one, which is situated within a few yards of the mound marked 3 in the plan, will serve for all.

The upper opening is 3 feet in diameter; that part of it which passes through the surface earth is built round with blocks of limestone. Three feet below the surface the opening terminates in the first step of a half-spiral staircase cut in the limestone, which leads to the floor of the chamber. The chamber itself is 18 feet long by 10 feet broad; the roof is arched, the highest part being just below the entrance; the opposite end is so low that it can not be reached without crawling on the hands and knees. The floor is slightly concave, giving the whole

somewhat an egg-shape appearance. It has been covered throughout with a layer of hard plaster, but a good deal of this has peeled off and is lying about on the floor. Nothing whatever was found in any of these chambers except the earth and rubbish which had fallen in through the opening. I have found eight of these chambers within an area of about 1 square mile around the mounds, and doubtless many more exist, concealed by the bush. I first discovered chambers of this kind in the western district of British Honduras, but I did not then think that they had been used as reservoirs for water, as several existed close to the Mopan river, where excellent drinking water could be obtained even in the driest season, and in one case a chamber of this kind had been used as a sepulcher.

Stephens, in his book on Yucatan,[1] mentions these chambers, of which he came across several near Uxmal. He was of the opinion that they had been used as reservoirs for water in the dry season, and I am now also of this opinion, as it would have been impossible for the builders of the mounds and buildings at Santa Rita to have brought their fresh water from the nearest natural supply, which is the Rio Nuevo, situated at a distance of 5 miles from the estate, from which it is separated by an almost impassable swamp. Nor could wells have supplied the aboriginal inhabitants with water, for not only have no traces of any been discovered, but wells which have been sunk on the estate in recent years have reached water so brackish that it is quite unfit for human consumption.

[1] John L. Stephens, Incidents of Travel in Yucatan, vol. I, p. 232.